



## ACCIDENT INSPECTION REPORT

**PRINCIPLE COMPANY: BRASDRIL SOCIEDADE DE PERFURAÇÕES LTDA**

**National Corporate Tax Reg. No (CNPJ): 42.101.311/0001-97**

**National Classification of Activities & Economics (CNAE): 09.10-6-00**

**Address: Rua Tenente Célio 185, Novo Cavaleiros, Macaé.**

### VICTIMS:

- 1. JORGE LUIZ BARBOSA**  
**POSITION: SEAMAN GRADE III**  
**DATE OF ACCIDENT: May 17, 2010.**  
**NATURE OF INJURY: FRATURA –CID- S12 2- (fracture to neck and other cervical vertebrae)**
- 2. MAURO CÉSAR DE OLIVEIRA SALOMÃO**  
**POSITION: SECOND ENGINEER**  
**DATE OF ACCIDENT: May 17, 2010**  
**NATURE OF INJURY: CONTUSIONS – CID S019 – head injuries**
- 3. CARLOS MAGNO BATISTA PEREIRA**  
**POSITION: MASTER (COASTAL)**  
**DATE OF ACCIDENT: May 17, 2010**  
**FATAL ACCIDENT**
- 4. JOSH ANDERSON**  
**POSITION: BALLAST CONTROL OPERATOR**  
**DATE OF ACCIDENT: May 17, 2010**  
**FATAL ACCIDENT**

**LOCATION OF ACCIDENT: OCEAN AMBASSADOR RIG PLATFORM**

**Dates of Inspections: May 16, 18 and 23, 2010**

### Inspection Team:

**José Roberto Moniz de Aragão – AFT- Engineer – CIF: 30270-8**

**Luiz Sergio Brandão de Oliveira– AFT- Labour Medic – CIF: 40196-0**

**(AFT = Audio Works Inspector, CIF = Intl. Functionality Classification)**

### REPORT:

This report deals with the inspection made on board the oil rig OCEAN AMBASSADOR belonging to BRASDRILL - which was employed in off shore drilling for the company OGX,- in

order to investigate the fatal accident which occurred in connection to life-boat No.2 belonging to the above mentioned rig.

### **Description of Accident:**

1. According to the report obtained on board in an interview with the Oil Installation Manager (OIM), Mr. Ronald Williams, who informed that he had been in charge of raising the lifeboat at the time of the accident:

Whilst performing the flotation and operational test on the lifeboat which contained the 4 above mentioned crew members on board, the boat was lowered to the sea, where the necessary tests were carried out, although the lifeboat falls remained connected in view of the current which had been detected by the stand-by vessel (*launch?*).

Prior to the process of lifting the lifeboat back to her position on board the rig, the crew verified that the on board hooking-up gear was correctly in place, where upon the boat was winched up very slowly.

During the lifting process, it was observed that the boat was swinging gently, and as a security measure, according to the OIM, the process was interrupted, and after rechecking, proceeded again.

When the lifeboat was nearly being housed, at the end of this operation, the boat was noted to be swinging gently again, and unexpectedly the forward falls became disengaged, resulting in the bows of the boat to drop, with the result that she was suspended by the after falls only.

After the lifeboat swung down rapidly and following three successive swings, the lifeboat disengaged completely and fell into the sea from an approximate height of 15 – 20 meters, being informed that the boat fell into the sea upside down (*hull uppermost*).

Rescue procedures were immediately instigated and the rescue boat was launched in order to save the people on board the lifeboat.

Following the rescue operation, the victims were brought on board (*the rescue boat*); being that Mr. Carlos Magno Pereira and Josh Anderson did not show any signs of life, according to the nurse's report.

Mr. Mauro Salomão and Mr. Jorge Luiz de Souza, survived and were taken off to hospital by helicopter where they remain under treatment upto the time and date of this report.

### **Accident Analysis**

As a basis for our observations we went to the scene of the accident where we made tests and measurements on the remaining lifeboat, and later ashore the same was made on the actual lifeboat<sup>i</sup> that suffered the accident, as well as collating information from the company and from the scene of the accident. We applied the method of sequential fault tree failure analysis (see attached) and we conclude the following:

- a. The death of the crew members was a consequence of injuries suffered through the fall of the lifeboat;
- b. The fall of the lifeboat occurred by virtue of the lifting rings becoming detached from the fixed lifting hooks of the boat.



c The forward lifting ring became disengaged because it slipped between the lifting hook and the locking mechanism.



- d. This slip occurred due to a dimensional failure of the mechanism, or we would say that the distance between the (*point of*) lifting hook and its locking device was greater than the thickness of the lifting ring (one inch).
- e. The second ring (aft) disengaged in view of the fact that the aftermost fixed lifting hook was lowered, probably due to the applied weight when the lifeboat was swinging.



- f. We attribute these failures to a design error in the lifting equipment of the lifeboat, named TRIPLE 5.





- g. We also observed that even though the hook locking device was of such dimensions to impede the lifting ring, there was still a possibility of failure.
- h. The locking device for the lifting hook remains in the correct position only due to the existing counter weight.



- i. We observed that in certain circumstances the locking mechanism can stay in the open position, permitting the lifting ring to slip out.



**Measures as determined by the Inspectors:**

1. It was determined that with immediate effect, to prohibit any tests with personnel on board the lifeboats belonging to any of this company`s drilling rigs, until the cause of the accident is clarified.
2. Following the conclusion of the inspectors investigations; to verify and adopt remedial action for all the company`s drilling rigs.
3. A copy of this inspection report was sent to Directorate for Ports and Coast (*DPC*) and to the National Petroleum Agency (*ANP*) for whatever precautions they should consider necessary.

**Conclusion:**

We conclude that the determining factor for the accident was a dimensional failure in the locking device for the forward lifting hook of the lifeboat.

Also in our evaluation the equipment TRIPLE 5, even in its normal dimensions, has an inherent failure that could cause a further accident of a similar nature, due to the failure of the locking mechanism for securing the lifting hook in the correct position.

Finally we assess that the failure and consequent disengagement of the second hook (aft) demonstrates a certain fragility in the mechanism as a whole, in view of the fact that the lifeboat was not with its full complement and despite this exceptional situation, it would be reasonable to suppose that the after lifting hook should be able to sustain the weight of the lifeboat without opening up.

**Rio de Janeiro, May 31, 2010.**

**José Roberto de Novaes Moniz de Aragão**  
**AFT- Labour Security Engineer**  
**CIF: 30270-8**

**Luiz Sérgio Brandão de Oliveira**  
**Labour Medic**  
**CIF: 40 196-0**

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i Verification made at the location where the equipment was taken to.